CLAIMS

What is claimed is:

1   1.   A computerized, Internet protocol (IP) based voice response system for servicing a

2   call received over a public switched telephone network (PSTN) comprising:

3   a PSTN-to-IP gateway for connecting to the public switched telephone network;

4   an IP network medium connected to the gateway; and

5   a network server in communication with the network medium for automated

6   interaction with a user participating in the call.

1   2.   The voice response system of claim 1, wherein the network server comprises a host

2   computer for executing a voice application program, a grammar database corresponding to a

3   set of recognizable utterances, and a voice recognition engine for comparing a speech input

4   from the user against the set of recognizable utterances.

1   3.   The voice response system of claim 2, wherein the voice application program is a

2   VoiceXML program.

1   4.   The voice response system of claim 2, further comprising a firewall in communication

2   with the network medium for connecting the network server to an external IP network through

3   the firewall, wherein the voice application program is remotely hosted on the external IP

4   network.

1   5.   The voice response system of claim 2, wherein the network server performs call

2   control communications with the PSTN-to-IP gateway in accordance with a SIP protocol.

1 6.   A scalable, computerized, Internet protocol (IP) based voice response system for

2 servicing a plurality of calls received over a public switched telephone network (PSTN)

3 comprising:

4   a PSTN-to-IP gateway for connecting to the public switched telephone network;

5   an IP network medium connected to the gateway;

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6   a plurality of network server in communication with the network medium for

7   automated interaction with a set of users participating in the plurality of calls; and

8   a proxy server in communication with the PSTN-to-IP gateway for load balancing the

9   plurality of calls amongst the plurality of network servers.

1 7.   The voice response system of claim 6, wherein each network server of the plurality of

2 network servers comprises a host computer having a distinct network identification number.

1 8.   The voice response system of claim 7, further comprising a configuration server for

2 automatically loading and configuring an initial software environment for the host computer

3 during its initial bootup sequence based upon the network identification number.

1 9.   A method of using voice over Internet protocols (VoIP) to handle circuit switched

2 calls in a voice activated system, the method comprising:

3   terminating a circuit switched call at a conversion device that translates the circuit

4   switched call into a VoIP format as a packet switched call;

5   forwarding the packet switched call in the VoIP format from the conversion device to

6   a computer system; and

7 performing speech recognition on the call using audio data extracted from the VoIP

8   format by the computer system.

1 10. The method of claim 9, wherein the conversion device and the computer system are

2 located in close physical proximity.

1 11. The method of claim 9, wherein there is a second computer system physically distant

2 from the conversion device and wherein the forwarding goes to the second computer system

3 responsive to a failure of the first computer system.

1 12. The method of claim 9, further comprising prior to the forwarding sending a message

2 from the conversion device to a second computer system, the second computer system

3 selecting the computer system from a plurality of computer systems to receive the call.

1 13. The method of claim 12, wherein the selecting according to a predetermined set of

2 criteria to balance number of calls being handled by each of the plurality of computer

3 systems.

1 14. The method of claim 12, wherein the message comprises a session initiation protocol

2 (SIP) request.

1 15. The method of claim 12, wherein the forwarding occurs responsive to a SIP

2 acknowledgement from the computer system.